Amendments to Claims:

Please cancel without prejudice, claim 3 and amend claims 1, 4, 5 and 11 as indicated. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) An automatic ground marking apparatus for marking ground, the apparatus comprising:

a carriage responsive to carriage control signals for traversing the ground, the carriage comprising a controllable steering and drive system and a controllable marking system for marking a sign on the ground;

a position determining system comprising a laser based electronic distance measuring device, the laser based electronic distance measuring device including a base station and a reflector, which system is arranged to determine the position of the carriage; and

a processor responsive to the position determining system and generating the

carriage control signals wherein the controllable steering and drive system respond to the carriage control signals to cause the carriage to traverse the ground and mark out a desired sign on the ground.

2. (Original) The automatic ground marking apparatus of claim 1, wherein the carriage control signals are transmitted to the carriage from a remote processor, and wherein the processor associates the carriage control signals with points defining the desired sign.

3. (Canceled) The automatic ground marking apparatus of claim 1, wherein the position determining system further comprises:

a laser based electronic distance measuring device, the laser based electronic distance measuring device further comprising:

a base station; and

a reflector.

4. (Currently Amended) The automatic ground marking apparatus of claim [3] 1, wherein the base station and the processor are mounted to the carriage, and the processor is connected to receive position data from the base station.

5. (Currently Amended) The automatic ground marking apparatus of claim [3] 1, wherein the base station is fixed to the ground and wherein the reflector is mounted to the carriage.

6. (Original) The automatic ground marking apparatus of claim 5, wherein the marking apparatus further comprises:

a radio link to relay carriage control signals to the carriage from the processor.

7. (Original) The automatic ground marking apparatus of claim 1, wherein the controllable steering and drive system further comprises:

a compass; and

a processing device responsive to the compass to determine an actual bearing of the carriage.

8. (Original) The automatic ground marking apparatus of claim 7 wherein the further processing apparatus compares the actual bearing with a desired bearing encoded in the carriage control signals.

9. (Original) The automatic ground marking apparatus of claim 1, wherein the controllable marking system further comprises:

a reservoir; and

dispensing nozzle for a marking medium.

10. (Original) The automatic ground marking apparatus of claim 9, wherein a controllable valve interconnects the reservoir and dispensing nozzle.

11. (Currently Amended) The automatic ground marking apparatus of claim 1, wherein the controllable steering and drive system further comprises;

a [number] plurality of independently controllable drive units, wherein each of the independently controllable drive units is coupled to a wheel of the carriage.

12, (Original) The automatic ground marking apparatus of claim 11, wherein the carriage further comprises:

a feedback sensor arranged to provide a feedback signal to the processor.

13. (Original) The automatic ground marking apparatus of claim 1, wherein the carriage further comprises:

an inclinometer for determining the attitude of the carriage.

14. (Original) The automatic ground marking apparatus of claim 13, wherein the inclinometer is coupled to a gimbal structure carrying a mast for a reflector and a marking means, wherein the inclinometer is arranged to maintain the mast in a vertical orientation.